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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,037	08/30/2001	Kim Hong Joong	381AS/50352	7291

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EXAMINER

WAKS, JOSEPH

ART UNIT PAPER NUMBER

2834

DATE MAILED: 01/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/942,037

Applicant(s)

JOONG ET AL.

Examiner

Joseph Waks

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) §.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the one rotor portion being supported from axially opposite sides by the support mechanism as recited in claim 1, and the synthesized magnetic pole position as recited in claims 18 and 20 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the ring member as recited in claim 8, and the synthesized magnetic pole position as recite in claim 18.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 2834

5. **Claims 1-26** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The feature of the one rotor portion being supported from axially opposite sides by the support mechanism and the synthesized magnet pole position is not supported by the specification or drawings.

Claims 1-26 are also rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. For the reasons indicated above one skilled in the art would not be able to make and/or use the invention.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1 and 7** are rejected under 35 U.S.C. 102(e) as being anticipated by **Bartel (US 6,191,561)**.

Bartel discloses in Figures 1 and 12 invention as claimed: a stator 88 having windings, a split rotor divided in two portions 82 and 84 having different polarity field magnets disposed alternately in a rotational direction, the rotor portion 84 includes a changing mechanism

Art Unit: 2834

changing an axial position of the portion 84 relatively to the portion 82 in accordance with a direction of the rotor torque.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 12-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bartel (US 6,191,561)** in view of **Kober (US 3,233,133)**.

Bartel discloses the machine essentially as claimed. However, **Bartel** does not disclose the elastic body provided between the rotor portions and another elastic body provided on a side of the one body portion.

Kober discloses in Figures 7 and 8 a rotational electric machine with a split rotor having an elastic body 123 provided between the rotor portions 6 and 7 and another elastic body 139 provided on a side of one of the body portions for the purpose of substantially balancing the magnetic force between the rotor portions over the range of motion desired.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to the machine as taught by **Bartel** and to provide elastic body provided between the rotor portions and another elastic body provided on a side of the one body portion as taught by **Kober** for the purpose of substantially balancing the magnetic force between the rotor portions over the range of motion desired.

10. **Claims, 21/1, 21/7/1, 22/21/1, 22/21/7/1, 23/1, 23//7 1, 24/1, 24/7 /1, 25/1, 25/7/1, 26/1 and, 26/7 /1** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bartel (US 6,191,561)**.

Bartel discloses the claimed invention except for the internal combustion engine, a battery the rotational electric machine linked with the engine crankshaft and the converter with the control unit that are typical for vehicle driving systems for both regular and hybrid vehicle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to since the examiner takes Official Notice that the single engine or hybrid engine/motor vehicles are known for their use of the rotating electrical machines art and the application of the machine disclosed by **Bartel** in the single engine or hybrid engine/motor vehicles would be within the level of ordinary skill in the art.

11. **Claims 21/12/1, 21/13/1, 21/14/13/1, 22/21/12/1, 22/21/13/1/, 22/21/14/13/1, 23/12/1, 23/13/1, 23/14/13/1, 24/12/1, 24/13/1, 24/14/13/1, 25/12/1, 25/13/1, 25/14/13/1, 26/12/1, 26/13/1, and 26/14/13/1** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bartel (US 6,191,561)** in view of **Kober (US 3,233,133)**.

The combined machine discloses the claimed invention except for the internal combustion engine, the battery the rotational electric machine linked with the engine crankshaft and the converter with the control unit that are all typical for vehicle driving systems using in both single engine and hybrid vehicles. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the vehicle with the above components since the examiner takes Official Notice that in the art of the single engine or hybrid engine/motor vehicles it is well known to use the rotating electrical machines in combination

Art Unit: 2834

with the above components and the application of the disclosed combined machine in the single engine or hybrid engine/motor vehicles would be within the level of ordinary skill in the art.

Prior Art

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (703) 308-1676. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.



JOSEPH WAKS
PRIMARY PATENT EXAMINER
TC-2800

JW
January 15, 2003